

CLAIMS

1. An optical transmission medium that comprises, in a nonlinear optical transmission medium, carbon nanotubes having an optical nonlinear characteristic are introduced.

5 2. The optical transmission medium according to claim 1, wherein said nonlinear optical transmission medium is a single-mode optical fiber.

3. The optical transmission medium according to claim 2, wherein a core of said optical fiber is composed of any
10 material of bismuth oxide, a synthetic resin comprising bismuth oxide, a glass-based component comprising bismuth oxide, and a fluoride-based component comprising bismuth oxide.

4. The optical transmission medium according to any of
15 claims 1 to 3, wherein the melting point of said nonlinear optical transmission medium is 1200°C or less.

5. The optical transmission medium according to any of claims 1 to 4, wherein said optical transmission medium is an optical fuse.

20 6. The optical transmission medium according to any of claims 1 to 5, wherein said optical transmission medium is a dispersion compensating element.

7. The optical transmission medium according to any of claims 1 to 6, wherein said carbon nanotubes are soluble in
25 organic solvents.